## 505713701 10/09/2019

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

1 V1.1 EPAS ID: PAT5760511

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
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GUANBIN XING	10/14/2016
GE HUANG	10/14/2016
HONGLIANG XU	10/14/2016

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### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15304856

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ATTORNEY DOCKET NUMBER:	088448-1026933 (004000US)	
NAME OF SUBMITTER:	SABRINA HUANG	
SIGNATURE:	/Sabrina Huang/	
DATE SIGNED:	10/09/2019	

**Total Attachments: 2** 

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PATENT REEL: 050659 FRAME: 0180

Attorney Docket No.: 088448-1026933 (004000US)

#### ASSIGNMENT OF NON-PROVISIONAL PATENT APPLICATION

WHEREAS, Wenjun Zhang, Guanbin Xing, Ge Huang, and Hongliang Xu, citizens of China, residing at No. 1018, East Sanli Qiao Rd, Shanghai, 200125, China, hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the below-identified non-provisional patent application:

Title of Invention:

Preamble symbol generation and receiving method, and

frequency-domain symbol generation method and device

Application No.:

15/304,856

Filing Date:

October 17, 2016

WHEREAS, Shanghai National Engineering Research Center of Digital Television Co., Ltd., located No. 1018, East Sanli Qiao Rd, Shanghai, 200125, China, hereinafter referred to as "ASSIGNEE," is desirous of acquiring an interest in the invention and application and in any U.S. Letters Patent and Registrations which may be granted on any patent application claiming priority from the same;

For good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have assigned, and by these presents do assign to Assignee all right, title and interest in and to the invention and application and to all foreign counterparts (including patent, utility model and industrial designs), and in and to any Letters Patent and Registrations which may hereafter be granted on any patent application claiming priority from the same in the United States and all countries throughout the world, and to claim the priority from the application as provided by the Paris Convention. The right, title and interest is to be held and enjoyed by Assignee and Assignee's successors and assigns as fully and exclusively as it would have been held and enjoyed by Assignors had this Assignment not been made, for the full term of any Letters Patent and Registrations which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignors further agree that they will, without charge to Assignee, but at Assignee's expense, (a) cooperate with Assignee in the prosecution of U.S. Patent applications and foreign counterparts on the invention and any improvements, (b) execute, verify, acknowledge and deliver all such further papers, including applications and instruments of transfer, and (c) perform such other acts as Assignee lawfully may request to obtain or maintain Letters Patent and Registrations for the invention and improvements in any and all countries, and to vest title thereto in Assignee, or Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Dated: 26-15, 14	Wenjun Zhang Wenjun Zhang
Dated: 2016, 10, 14	Gnombin Xina
	Guanbin Xing

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Dated: <u>2016.10,140</u>

Dated: 2016, 10,14

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